VINNICHENKO, S. N., podpolkovnik meditsinskoy sluzhby

Case of a combined perforated peptic ulcer and acute appendicitis.
Voen.-med. zhur. no.12:66 D '61. (MIRA 15:7)

(PEPTIC ULCER) (APPENDICITIS)

VINNICHENKO, S. N., (Lieutenant Colonel of the Medical Service)

"A Case of Combination of Perforating Gastric Ulcer and Acute Appendicitis"

Voyenno-Meditsinskiy Zhurnal, No. 12, December 1961, pp 62-73

VINNICHENKO, V. Z.

5372. Vinnichenko, V. Z. Fizicheskiy prakitkum (Posobiye d,lya fizmatem. Fak. Ped. in-tou USSR). 12d 2-ye. Pererabot. 1. dop. Kiyeu, Rao; shkola, 1954. 400 s. s ill,; 1 L. Tabl. 23 sm 5,000 eks. 8r. 45 k. V Per.---Bibliogr: S 394 lv kontse rabot.---Na ukr, yaz.---(55-189)
53(076.5)+(016.3)

SO: Knizhnaya Letopis', Vol. 1, 1955

ABDURAMANOV, A.B.; BATAYEVA, L.G.; VINNICHENKO, V.I.; CHASOVIKOVA, Z.I., tekhn.red.

[Wine making in Kazakhstan] Vinodelie v Kazakhstane. Izd.2., dop. Alma-Ata, TSentr.in-tnauchno-tekhn.informatsii, 1959. 17 p. (MIRA 13:11)
(Kazakhstan--Wine and wine making)

VINNICHENKO, V.M.; NIKOLAYEV, S.V. [deceased]

[Economics, organization, and planning of geological prospecting; technical economic calculations] Ekonomika, organizatsiia i planirovanie geologorazvedochnykh rabot; tekhniko-ekonomicheskie raschety. Moskva, Nedra, 1965. 223 p. (MIRA 18:6)

VINNICHENKO, Vladimir Mitrofanovich; PAVLOV, Dem'yan Ivanovich; KUZNETSOV, P.V., red. ekonomist; TIKHANOV, A.Ya., tekhn. red.

[Tables for computing wages for workers in enterprises of machinery manufacturing and metalworking industries] Tablitsy dlia nachisleniia zarabotnoi platy rabochim predpriiatii mashinostroitel'noi i metalloobrabatyvaiushchei promyshlennosti; posobie dlia schetnykh rabotnikov i normirovshchikov. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1961. 130 p. (MIRA 14:12)
(Wages—Machinery industry) (Wages—Metalworkers)

VINNICHENKO, V.S.

Thirtieth anniversary of the Novolipetsk Metallurgical Plant.
Stal' 24 no.11:961-963 N '64. (MIRA 18:1)

1. Direktor Novolipetskogo metallurgicheskogo zavoda.

VINNICHENKO, V.V., Assistent

Control of dermatomycoses in Stalino Province. Vest.ven. i derm. no.2:13-16 Mr-Ap '55. (MLRA 8:5)

1. Iz kafedry kozhnykh i venericheskikh bolezney (zav. prof. A.A. Kroychik) Stalinskogo meditsinskogo instituta (dir. dotsent A.M. Ganichkin).

(FUNGUS DISEASES,
skin, prev. & control in Russia)
(SKIN, diseases,
fungus dis., prev. & control in Russia)

KROYCHIK, A.A., prof.; VINNICHENKO, V.V.

Treatment of dermatoses by blood transfusion. Vrach.delo no.8: 140-142 Ag '62. (MIRA 15:11)

1. Kafedra kozhnykh i venericheskikh bolezney (zav. - prof. A.A.Kroychik) Donetskogo meditsinskogo instituta i 4 Donetskaya gorodskaya bol'nitsa.
(BLOOD--TRANSFUSION) (SKIN--DISEASES)

VINNICHENKO, V. V., Cand Med Sci -- (diss) "Dermatomycoses in Stalinskaya Oblast and their control." Stalino, 1957. 13 pp (Stalino State Med Inst im A. M. Gor'kiy), 200 copies (KL, 1-58, 121)

KOLOMOYTSEV, L.R., dotsent; TUMASHOVA, N.I., kand.med.nauk, assistent;
VLINICHENKO, V.V., assistent; STRONGOVSKAYA, N.V., assistent

Pyoderma in workers of the coal industry in Stalino. Vest.derm.i ven. 33 no.4:22-26 Jl-Ag '59. (MIRA 12:11)

1. Iz kafedry kozhnykh i venericheskikh bolezney (zav. - prof. A.A. Kroychik) i kafedry mikrobiologii (zav. - dotsent L.R. Kolomoytsev) Stalinskogo meditsinskogo instituta (dir. - prof. A.M. Ganichkin).
(OCCUPATIONA DISEASES)
(PYODERMA, statistics)
(COAL MINING)

VINNICHENKO, V. V.

Epidermophytosis among miners. Vest. derm. i ven. no.6:70-72 '61. (MIRA 15:4)

1. Iz kafedry kozhnykh i venericheskikh bolezney (zav. - prof. A. A. Kroychik) Stalinskogo meditsinskogo instituta (dir. - dotsent A. M. Ganichkin) i 4-y gorodskoy bol'nitsy (glavnyy vrach T. N. Troyko)

(DERMATOMYCOSIS)
(COAL MINERS—DISEASES AND HYGIENE)

SHATILOV, A.L.; VINNICHENKO, V.V.

Two cases of trichosporosis nodosa. Vest.ven. i derm. 30 no.2:46 Mr-Ap '56. (MLRA 9:7)

1. Iz kozhno-venerologicheskoy kliniki Stalinskogo meditsinskogo instituta i Makeyevskogo gorodskogo kozhno-venerologicheskogo dispansera, Donbass.
(HAIR--DISEASES)

ACC NR: AP7001700 SOURCE CODE: UR/0032/66/032/012/1488/1490

AUTHOR: Vinnichenko, V. Ye.

ORG: "Zaporozhstal'" Plant (Zavod "Zaporozhstal'")

TITLE: A method for inspection of thin sheets by normal waves

SOURCE: Zavodskaya laboratoriya, v. 32, no. 12, 1966, 1488-1490

TOPIC TAGS: quality control, light excitation, light dispersion, sheet metal

ABSTRACT: If the surface of a sheet is ideally smooth, and if there falls on the surface a plane monochromatic wave, there is created in the sheet a strongly marked normal wave, for which the following condition is satisfied:

$$V = \frac{V_0}{\sin \vartheta}.$$

Here ϑ is the angle of incidence of the exciting wave; V_0 is the phase velocity of the exciting wave; V is the phase velocity of the normal wave. Using this procedure, V is found from dispersion curves for the given material of the sheet. However, under real conditions, the exciting pulse is limited in extent and in duration. Then, representing the incident pulse in the form of a Fourier integral, it must be assumed that on the surface of the sheet there fall plane monochromatic waves of different frequencies and at different angles. On this basis, for inspection of hot-rolled

 UDC: 620.179.16

ACC NR: AP7001700

sheets using normal waves, it is proposed to employ a null antisymmetric wave in the region $250 < fd < 500$ kilocycle-cm. The videodector of a Type UDV-1m defectoscope, for the formation of an echo signal, is shunted by a capacitance of 1300-2200 picofarads. Orig. art. has: 1 figure.

SUB CODE: 13, 11, 20/ SUBM DATE: none/ ORIG REF: 003

Card 2/2

L 08072-67 EWT(d)/EWT(m)/EWP(t)/EWP(b)/EWP(t)/ETI/EWP(k)/EWP(z) IJP(c) JD/HW

ACC NR: AP6019020 (N) SOURCE CODE: UR/0032/66/032/001/0038/0040

AUTHOR: Vinnichenko, V. Ye.

ORG: "Zaporozhstal'" Plant (Zavod "Zaporozhstal'")

TITLE: Checking laminations in thin sheets

SOURCE: Zavodskaya laboratoriya, v. 32, no. 1, 1966, 38-40

TOPIC TAGS: lamination, sheet metal, cold rolling, hot rolling, ultrasonic flaw detector, alloy steel / UDM-1M ultrasonic flaw detector

ABSTRACT: A method of checking laminations of cold rolled sheets of alloy steels with a thickness of up to 6 mm is proposed. A UDM-1M flaw detector is used. The sheets are checked directly on the table if they are sufficiently dry. Otherwise, wooden beams are placed under each sheet. Large sheets are spread with a crane and smaller ones are spread manually. Each section is serviced by one checker and 2—3 assistants. The flaw detector operates at a frequency of 1.8 Mhz. The method reliably distinguishes nonmetallic inclusions with a length of > 50 mm. The method permits checking of about 100 sheets of 1000 x 2500 mm in 1 hr of continuous operation. Orig. art. has: 1 diagram and 1 table.

SUB CODE: 13/ SUBM DATE: none/ ORIG REF: 002

Card 1/1 egh

UDC: 620.179.16

VINNICHENKO, Ya.F.

Clamp guides for school microscopes, magnifying glasses used in preparation and binocular magnifying glasses. Biol. v shkole no. 2:81-83 Mr-Ap '58. (MIRA 11:4)

1. Khersonskiy pedagogicheskiy institut.
(Optical instruments)

VINNICHENKO, Yg. F.

VINNICHENKO, Yg.F., kandidat pedagogicheskikh nauk.

Study of interaction of scion and stock in bean grafting. Est. v shkole no.3:57-60 My-Je '54. (MLRA 7:7)

1. Kazanskiy gosudarstvennyy pedagogicheskiy institut.
(Grafting) (Hybridisation, Vegetable)

VINNICHENKO, Y&F.

Stuffing of small animals. Est. v shkole no.4:91-92 Jl-Ag '54.
(MLRA 7:8)

1. Kazanskiy gosudarstvennyy pedagogicheskiy institut.
(Mammals--Collection and preservation) (Taxidermy)

VINNICHENKO, Ya.F., kand.pedagogicheskikh nauk

Studying the biology of pigeons in a nature corner. Biol.v shkole no.6:61-64 N-D '62. (MIRA 16:2)

1. Khersonskiy pedagogicheskiy institut.
(Pigeons) (Birds--Study and teaching)

VINNICHENKO, Ya.F., kand.pedagogicheskikh nauk

Experimental work of young naturalists with the mulberry silkworm. Biol. v shkole no.5:57-59 S-O '61. (MIRA 14:9)

1. Khersonskiy pedagogicheskiy institut.
(Silkworms)

VINNICHENKO, Ya.P., kand.pedagogicheskikh nauk

Mobile birdhouse for starlings and its use in the work of young naturalists. Biol. v shkole no.2:68-70 Mr-Ap '62. (MIRA 15:2)

1. Khersonskiy pedagogicheskiy institut.
(Birdhouses)

VINNICHENKO, Yekaterina Fedotovna; VINOKUROVA, Tat'yana Mikhaylovna; KOMULAYNEN, Al'bertina Andreyevna; NOVITSKAYA, Yuliya Yevgenimova; BUSTROVA, Zoya Aleksandrovna; IVANOVA, A., redaktor; SHEVCHENKO, L., tekhnicheskiy redaktor

[Bringing wild grasses into cultivation] Vvedenie v kul'turu dikorastushchikh trav. Petrozavodsk, Gos. izd-vo Karelo-Finskoi SSR, 1956. 63 p. (MLRA 9:11)
(Grasses)

USSR/Cultivated Plants - Fodders. II.

Abs Jour : Ref Zhur - Biol., No 10, 1958, 44142

Author : Vinnichenko, Ye.F.

Inst : Karelian Affiliate of the AS USSR

Title : Biological Peculiarities of Wild Fodder Grasses Cultures in Karelia.

Orig Pub : Tr. Karel'sk. fil. AN SSSR, 1957, vyp. 6, 48-108.

This article gives the results of the study of the phenology of local varieties and populations of the wildly and sown feed grasses at the Karelian affiliate of the Academy of Sciences of USSR in 1949-1955: meadow timothy meadow foxtail grass, the foxtail grass Alopecurus arundinaceus, meadow fescue, dew grass, white bent grass, red fescue, Kentucky blue grass. The greatest yield of the green bulk under

Card 1/2

USSR/Cultivated Plants - Fodders. II.

Abs Jour : Ref Zhur - Biol., No 19, 1958, 84142

equal conditions is produced by the wild growing populations, then the ancient (those that turned wild) varieties, and occupying the last place in yield and the quality of the grass stand are the cultivated varieties. Under the conditions prevailing in Karelia the spring sowing of grass is more rational than the pre-winter sowing. The local wildly growing herbaceous grasses are distinguished by great plasticity and adaptability to new conditions. These properties offer the possibility of developing in these forms the cultivated varieties necessary for farming and which the greatest economic significance. -- N.I. Grib

Card 2/2

VINNICHENKO, Ye.F.

Causes for poor wintering of clover in Karelia. Izv. Kar. i Kol'. fil. AN SSSR no.1:78-86 '59. (MIRA 12:9)

1. Institut biologii Karel'skogo filiala AN SSSR.
(Karelia--Clover)

VINNICHENKO, Ye.F.

Introduction of wild forage grasses in the Karelian A.S.S.R.
Trudy Bot.inst.Ser.6 no.7:196-197 '59. (MIRA 13:4)

1. Institut biologii Karel'skogo filiala AN SSSR, Petrozavodsk.
(Karelia--Grasses)

PROBST, A.Ye., prof., doktor ekonom.nauk, otv.red.; VINNICHENKO, Ye.K., red. izd-va; GUSEVA, I.N., tekhn.red.

[Centrifugal methods of coal preparation] Tsentrobezhnoe obogashchenie uglei. Moskva, Izd-vo Akad.nauk SSSR, 1959. 130 p. (MIRA 12:7)

1. Akademiya nauk SSSR. Sovet po izucheniyu proizvoditel'nykh sil.
(Coal preparation) (Centrifugation)

SHRAYBER, D.S., kand.tekhn.nauk; NEKLYUDOV, D.P., inzh.red.; VINNICHENKO, Ye.K., inzh., glavnyy red.

[Present-day methods of detecting flows; a survey of foreign literature] Sovremennye metody defektoskopii; obzor zarubezhnoi periodicheskoi literatury. Moskva, 1956. 39 p. (Informatsiia o nauchno-issledovatel'skikh rabotakh. Tema 20, no.0-56-302) (MIRA 11:2)

1. Moscow. Institut tekhniko-ekonomicheskoy informatsii
(Metals--Testing) (Quality control)

STECHKIN, B.S., akad.st.nauchn.sotrudnik, red.; STUL'NIKOV, N.P., kand.tekhn. nauk,red.; BLYUDOV, kand.tekhn.nauk, red.; SHUVALOV, G.I., kand.tekhn. nauk,red.; VINNICHENKO, Ye.K., red.; GRIBOVA, M.P., tekhn.red.

[Gas turbines; use of stationary and movable gas turbines in various branches of industry; collection of articles] Gazovye turbiny; ispol'zovanie statsionarnykh i peredvizhnykh gazoturbinnykh ustanovok v razlichnykh otrasliakh promyshlennosti; sbornik statei. Moskva, Izd-vo inostr. lit-ry, 1958. 178 p. (MIRA 11:8)

1. Komissiya po gazovym turbinam AN SSSR, (for Stul'nikov, Blyudov, Shuvalov.)
(Gas turbines)

VINNICHENKO, Ye.K.

SHTERLING, S.Z., dots.; NEKLYUDOV, D.P., inzh.red.; VINNICHENKO, Ye.K., inzh.red.

[The welding, soldering and cutting of aluminum and its alloys; a survey of foreign periodical literature] Svarka, paika i rezka aliuminiia i ego splavov; obzor zarubezhnoi periodicheskoi literatury. Moskva, 1956. 22 p. (Informatsiia o nauchno-issledovatel'skikh rabotakh. Tema 5, no.O-56-309) (MIRA 11:2)

1. Moscow. Institut tekhniko-ekonomicheskoy informatsii.
(Aluminum) (Solder and soldering)

VINNICHENKO, Ye.K., glavnyy red.; NEKLYUDOV, D.P., inzh.red.

[Chemical and electrolytic deposition of metals] Khimicheskie i elektroliticheskie metallicheskie pokrytiia. Moskva, 1956. 30 p. (Informatsiia o nauchno-issledovatel'skikh rabotakh. Tema 23, no.O-56-311) (MIRA 11:2)

1. Moscow. Institut tekhniko-ekonomicheskoy informatsii.
(Electroplating) (Metals--Finishing)

USSR/Optics - Optical Methods of Analysis. Instruments. K-7

Vinnichinko, E. N.

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 13076

Author : Vinnichinko, E.N., Zaydel', A.N.
Inst :
Title : Concerning the Influence of the Atmosphere of Rare Gases on the Sensitivity of the Spectral Analysis.

Orig Pub : Vestn. Leningr. un-ta, 1956, No 10, 22-28

Abstract : A study was made of the influence of an atmosphere of helium and argon on the absolute and concentrational sensitivity of the determination of many elements in the ac spark and in the ac arc. The absolute sensitivity was studied with solutions of chlorides of beryllium, gadolinium, and cadmium, coated on metallic electrodes in both a closed chamber with argon, as well as in an argon current. In the case of a spark, connected in a complicated circuit, the intensities of all the lines in the air were greater than in argon. In the case of an ac arc, at a

Card 1/3

USSR/Optics - Optical Methods of Analysis. Instruments. K-7

Abs Jour : Ref Zhur - Fizika, No 5, 1957, 13076

calibration curves were obtained, while the lines for bismuth were curved. To attain identical blackening of the analytical lines, the time of exposure in helium was increased by a factor of 60 compared with that in air. It is concluded that replacing air with helium or argon does not lead in most cases to a substantial gain in the absolute sensitivity, but in many cases there is a considerable gain in the concentration sensitivity. The intensity of the spectra of metals, excited in helium, is always substantially less than that of spectra excited under the same condition in air or in argon.

Card 3/3

S/130/61/000/003/002/008
A006/A001

AUTHORS: Kudrin, V.A., Vinnichenko, Ye.V., Sviderskiy, G.V., Tunkov, V.P., Sokolov, O.N.

TITLE: Processing of Liquid Steel With Solid Synthetic Mixtures

PERIODICAL: Metallurg, 1961, No. 3, pp. 16 - 17

TEXT: A series of experimental heats were carried out on furnaces of an open-hearth shop at the "Serp i molot" plant. The investigation was made for the purpose of revealing the possibility and expediency of treating steel with solid synthetic mixtures. The following composition of a desulfurizing mixture was selected (in %): Freshly burnt lime 70 - 75; fluorspar 25 - 28; crushed aluminum 0 - 4. The consumption was 8 - 11 kg/ton of steel. The components of the mixture were crushed manually, and fluorspar was preheated in a mold. The mixture was supplied to the metal jet when leaving the furnace, partly from a bin with 45% ferrosilicon, partly by hand. Data given in Table 1 show that the sulfur content was reduced by 28% on the average, after treating the metal with the synthetic mixture, in relation to the sulfur content prior to that. Desulfurization process is somewhat intensified at a higher carbon content. An analysis of results ob-

Card 1/4

Processing of Liquid Steel With Solid Synthetic Mixtures

tained from the experiments has shown that the content of non-metallic impurities in the metal that was treated with the mixture or not treated, is equal. CaO was not revealed in the impurities. An analysis of the experimental heat metal, as to the hydrogen content depending on the moisture of the mixture, shows that a moisture up to 1.5% H_2O, does practically not affect the hydrogen content in the metal. Results of mechanical tests are given in Table 2. It was found that the efficiency of open hearth furnaces can be raised by 10-15% when treating high-quality instrument steel with synthetic mixtures. This is due to a reduced bubbling time required to assure metal desulfurization in heats of conventional technology. The cost price of steel is correspondingly reduced by 2 - 2.5%. The degree of desulfurization depends only slightly on the sulfur content in the ladle prior to treatment. It decreases in the case when the heat is teemed at the lowest metal temperature limit for the given jet, to prevent metal splashing in case that components of higher moisture should fall into the ladle. Supply of the mixture should be started after teeming into the ladle about one fourth of the heat; it should be completed prior to the formation of slag. The mixture can not be supplied to the ladle bottom prior to teeming the heat, because of safety conditions.

S/130/61/000/003/002/008
A006/A001

Processing of Liquid Steel With Solid Synthetic Mixtures

Table 1

Results of chemical analyses of samples and the degree of desulfurization

Number of Heat (Номера плавок)	Steel (Сталь)	Content, % (Содержание, %) C	Mn	P	Content, % (Содержание S) prior to treatment (до обработки)	after treatment (после обработки)	Desulfurization degree, % (Степень обессеривания, %)
54468	У12А	1,22	0,18	0,008	0,027	0,018	33,4
54477	У8А	0,87	0,26	0,008	0,020	0,015	25,0
54528	У8А	0,85	0,24	0,010	0,020	0,012	40,0
54577	У8А	0,85	0,25	0,010	0,024	0,018	25,0
63109	У8А	0,72	0,23	0,010	0,025	0,018	25,0
63135	У10А	0,95	0,19	0,010	0,028	0,020	28,6
54697	Ст. 5	0,37	0,56	0,010	0,030	0,023	23,4
54700	У12А	1,15	0,20	0,010	0,024	0,018	25,0
54761	20	0,17	0,40	0,012	0,030	0,024	20,0
54777	20	0,18	0,47	0,012	0,037	0,030	19,0
54804	20	0,17	0,65	0,016	0,037	0,025	32,4
54808	40	0,39	0,34	0,018	0,038	0,026	31,6
63257	У8А	0,82	0,18	0,010	0,030	0,019	36,8
63262	20	0,23	0,64	0,010	0,036	0,028	22,8

Card 3/4

S/130/61/000/003/002/008
A006/A001

Processing of Liquid Steel With Solid Synthetic Mixtures

Table 2: Mechanical properties of the metal

Heat	Ultimate strength kg/mm^2	Yield limit kg/mm^2	Relative elongation %	Relative constriction %
Treated with mixture	48,1	38,0	31,4	63,2
Non-treated	48,2	36,0	29,4	59,6

There are 2 tables.

ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute), Zavod "Serp i Molot" ("Serp i molot" Plant)

Card 4/4

L 45219-65 EWT(m)/EWP(z)/EWA(c)/T/EWP(b)/EWA(d)/EWP(t) MJW/JD
ACCESSION NR: AP5008385 S/0148/65/000/003/0053/0058

AUTHOR: Vinnichenko, Ye. A.; Kosterev, L. B.; Yavoyskiy, V. I.; Danilin, V. I.; Selivanov, V. M.; Fedan, A. I.

TITLE: Experiments with molten slag degassing of steel

SOURCE: IVUZ. Chernaya metallurgiya, no. 3, 1965, 53-58

TOPIC TAGS: degassing, slag, chromium steel

ABSTRACT: Degassing experiments done on four grades of steel: 1Kh13, Kh17, Kh23N18 and Kh23N13. A low-viscosity basic synthetic slag was prepared in an electric furnace and mixed with the steel in an intermediate vessel before teeming. Melt temperatures, gas content, and slag chemical composition were checked during the process. It was found that with properly prepared slag and good contact of slag and metal the original hydrogen content of the metal may be reduced by 20-30%. Another index of degassing is the hydrogen content of the slag at the start of refinement. Several concomitant mechanisms for degassing are adduced including the volatilization of *HF*. At some distance from the electrode, it is possible that the reverse process occurs, i.e. the solution of hydrogen in slag, but the dominant pro-

Card 1/2

L 45219-65
ACCESSION NR: AP5008386

cess is the desorption of hydrogen, particularly desorption at the electrode. The regular relationship between the absolute lowering of hydrogen content and the [illegible] saturation of steel when the temperature of the refining slag is [illegible] shown. Simultaneous investigations of the nitrogen content in the metal showed that while some titanium nitrides do adhere to coarse inclusions in the slag, the use of molten slag for degassing does not reduce the nitrogen content of the steel. "M. M. Kulkova, L. T. Shepel', I. N. Zimina, K. V. Belyakova, A. S. Spirin and A. F. Sen'kin participated in the work." Orig. art. has: 4 figures, 2 tables, 5 formulas.

ASSOCIATION: Moskovskiy institut stali i splavov (Moscow Institute of Steel and Alloys); Metallurgicheskiy zavod "Krasnyy Oktyabr'" (Krasnyy Oktyabr' Metallurgical Plant)

SUBMITTED: 16Nov64 ENCL: 00 SUB CODE: MM

NO REF SOV: 004 OTHER: 003

BJP

Card 2/2

VINNICHENKO, Ye. V.

Motion pictures in education. Vest. Mosk. un. Ser. biol., pochv., geol., geog. 12 no.3:233-234 '57. (MIRA 10:12)
(Motion pictures in education)

1. VINNICHUK, K. M.

2. USSR (600)

4. Mine Railroads

7. Catch for cars on the empty track in slope mining. Ugol' No 1 1953

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

KONONOVA, M.Ye.; VINNICHUK, R.I.

Study of methods for disinfestation of rice seeds from Aphelenchoides oryzae Yokoo. Trudy Gel'm. lab. 9:130-132 '59. (MIRA 13:3)
(Nematoda) (Rice--Diseases and pests)
(Seeds--Disinfection)

VINNIK, A. O., VETUSHNYAK, L. F.

CUCUMBERS

Intervarietal crossing of cucumbers. Agrobiologiia No. 4, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. Unclassified.

VINNIK, A. G.; NIKULINA, L. B.

Cabbage - Ukraine

High yields of seeds of common cabbage in the Ukrainian S.S.R. Sel. i sem. 20, No. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

VINNIK, A. G. ; NIKULINA, L. B.

Ukraine - Cabbage

High yields of seeds of common cabbage in the Ukrainian S.S.R. Sel. i sem. 20, No. 3, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

KNYAZEV, A.T.; VINNIK, A.I.; KULAKOV, N.N.

Control of the rotation direction of the hoist. Ugol' Ukr. 5 no.5% 17-18 My '61. (MIRA 14:5)

1. Donigiprouglemash.
(Hoisting machinery) (Automatic control)

KNYAZEV, A.T., inzh.; VINNIK, A.I., inzh.

Depth indicator for hoisting machinery with friction pulleys.
Bezop.truda v prom. 5 no.12:21-22 D '61. (MIRA 15:1)

1. Dongiprouglemash.
(Mine hoisting--Safety appliances)

VINNIK, B.

AID P - 902

Subject : USSR/Aeronautics

Card 1/1 Pub. 135 - 12/19

Author : Vinnik, B., Engineer Major

Title : Preparing sleeves for towing by fighter aircraft

Periodical : Vest. vozd. flota, 5, 68-72, My 1954

Abstract : The author describes sleeves specially prepared for towing by jet aircraft. Special arrangements make the take-off, towing and dropping by jet aircraft as safe and easy as operation by slower aircraft. Some information on production specifications, maintenance, inspection, improvements introduced by unit efficiency experts, and the operation of the sleeves is given. Some names are mentioned. Diagrams.

Institution : None

Submitted : No date

VINNIK, B.

AID P - 2212

Subject : USSR/Aerodynamics

Card 1/1 Pub. 135 - 13/18

Author : Vinnik, B., Eng. Maj.

Title : Regimental armament engineer

Periodical: Vest. vozd. flota, 6, 70-72, Je 1955

Abstract : The author describes the activities of Kolesnikov, D.N., the officer in charge of the maintenance and servicing of aircraft armament in an Air Force regiment. Other names are mentioned. Photo.

Institution: None

Submitted : No date

VINNIK, B.

AID P - 2657

Subject : USSR/Aeronautics

Card 1/1 Pub. 135 - 12/17

Author : Vinnik, B., Maj. Eng.

Title : Operation of aircraft gunnery sights

Periodical : Vest. vozd. flota, 9, 69-73, S 1955

Abstract : The author takes the example of one of the Air Force units to describe how semi-automatic gun sights should be operated and maintained to give faultless service. Names are mentioned.

Institution : None

Submitted : No date

VINNIK, B.I.; TANTSYURA, N.

Wages for basic production workers in sugar plants based on amount of sugar produced. Sakh. prom. 32 no. 6:42-45 Je '58. (MIRA 11:7)

1. Kiyevskiy sovnarkhoz(for Vinnik). 2. Smelyanskaya normativno-issledovatel'skaya laboratoriya(for Tantsyura)
(Wages)
(Sugar workers)

VINNIK, B.I., inzh.

Introduction of welding in a carbon dioxide medium at the Kherson Combine Plant. Mashinostroenie no.6:53-55 N-D '63. (MIRA 16:12)

VINNIK, E. I.

Sugar Refinery Workers

Interfactory stakhanovite schools. Sakh. prom. 27, No. 3, 1953.

Monthly List of Russian Accessions, Library of Congress
June 1953. UNCLASSIFIED.

VINNIK, B. I.

Technical Education

Interfactory stakhanovite schools. Sakh. prom., 27, No. 2. 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Uncl.

86-58-4-18/27

AUTHOR: Vinnik, B. S., Engr-Lt Col

TITLE: The Making of an Engineer (Stanovleniye inzhenera)

PERIODICAL: Vestnik vozdushnogo flota, 1958, Nr 4, pp 69-72 (USSR)

ABSTRACT: This is a story of how a former political worker in the Air Force was appointed, after his graduation from an engineering academy, to the post of armament engineer of the regiment. The zeal with which the young engineer tried to overcome all difficulties in connection with his inexperience as well as the help he was given by his experienced superiors in technical matters, is particularly emphasized by the author.

AVAILABLE: Library of Congress

1. Engineering personnel - USSR 2. Military engineering - Study and teaching - USSR

Card 1/1

VINNIK, B.S., inzh.-podpolkovnik.

Technical progress and efficiency promoters. Vest. Vozd. Fl. 40 no.9:55-57 S '57. (MIRA 11:1)
(Airplanes--Maintenance and repair)

PUSHKIN, A.I., general-mayor aviatsii, Geroy Sovetskogo Soyuza, voyennyy letchik pervogo klassa.; SUKHOCHEV, N.P., inzh.-polkovnik; VINNIK, B.S., inz.-podpolkovnik.

Revise antiquated views. Vest. Vozd. Fl. 41 no.10:83-84 O '58. (MIRA 11:10)

(Airplanes--Maintenance and repair)

SOV/86-58-8-21/37

AUTHOR: Vinnik, B.S., Engr Lt Col

TITLE: Instructive Experience of an Aviation Materiel Maintenance Organization (Pouchitel'nyy opyt organizatsii obsluzhivaniya aviatsionnoy tekhniki)

PERIODICAL: Vestnik vozdushnogo flota, 1958, Nr 8, pp 59-63 (USSR)

ABSTRACT: The article describes how the problem of organizing maintenance and servicing of aircraft was solved by a new method in an air force unit. According to this method the mechanics of various specialities are not assigned permanently to certain aircraft, but are organized into so-called maintenance groups. Each day the necessary maintenance work as well as servicing of aircraft is carried out by teams and individual mechanics of the maintenance groups under the supervision of group leaders. An aircraft technician, assigned permamently to his aircraft, checks the quality

Card 1/2

of maintenance work and the responsibility for the good condition of his aircraft rests with him.

SOV/86-58-10-34/40

AUTHOR: Pushkin, A.I., Maj Gen of the Air Force, Hero of the Soviet Union; Sukhochev, N.P., Engr Col; and Vinnik, B.S., Engr Lt Col

TITLE: Obsolete Ideas Should be Revised (Peresmotret' ustarevshiye vzglyady)

PERIODICAL: Vestnik vozdushnogo flota, 1958, Nr 10, pp 83-84 (USSR)

ABSTRACT: The authors of this article are of the opinion that the idea that only engineer-mechanics (aircraft and engine specialists) should be appointed as supervisors of aviation engineering service is obsolete. In addition to airframe and engines, a modern aircraft consists of a great variety of very complicated equipment and armament. Proper maintenance of such aircraft requires the knowledge and skills of four engineers of different specialties. The authors, therefore, rec-

Card 1/2

ommend that aviation engineering service at all levels should be supervised by officers who have the necessary knowledge, experience, and qualifications of organizer, regardless of the department of an engineering institutions from which they graduated.

VINNIK, B.S.

86-9-19/36

AUTHOR: Vinnik, B. S., Engineer Lt. Col.

TITLE: Technical Progress and "Rationalizers" (Tekhnicheskiy progress i ratsionalizatory)

PERIODICAL: Vestnik Vozdushnogo Flota, 1957, Vol. 40, Nr 9, pp. 55-57 (USSR)

ABSTRACT: This is a narrative about the technical improvements which the author saw and the needed improvements which he found still lacking at an unspecified Air Force airdrome when he revisited it. Some aircraft fuel tanks were still drained manually, by pumps, because only two refueling trucks were equipped with the special hose units needed for the purpose. The special hose unit was conceived and made in the Air Force unit stationed at the airdrome, of a fuel-drain hose and a compressed-air supply hose combined. With this device, three minutes was the time needed for draining of the tank, while the previous manual operation needed 15 minutes. However, the fabrication of the device was hindered by the difficulty in obtaining suitable components, such as the manometer, reducer, and even the hose. In this conjunction, the deputy commander for engineering service, Eng. Capt. Dmitriy Aleksandrovich Mayakov,

Card 1/3

86-9-19/36

Technical Progress and "Rationalizers" (Cont.)

expressed his amazement that such a device had to be fabricated in the unit instead of being made by regular manufacturers, and he added that whereas the construction of the centralized refueling system has been started on the airdrome, the unsolved mechanization problems still exist. The three-ton trucks are available on the airdrome for transportation, but there are no light-weight vehicles comparable to those used in railroad stations for transporting luggage, to transport, say, just one storage battery or one compressed-air bottle. Technician Lt. Vasiliy Aleksandrovich Vol'khin, the most active local "rationalizer", designed a vacuum cleaner which cleans the aircraft cabin in five minutes. His other creation is the device for removing and mounting the aircraft wheel tires. The complete operation now takes ten minutes; previously, it took at least forty minutes and then also "semi-circular rings were broken and wheel rims deformed barbarously". His is also a device which reduced five times the time needed for bringing the tire pressure to a specific value; to achieve this, it was previously necessary to connect the tube nipple several times, alternately, to the compressed-air supply and then to the manometer. Technician Lt. Vasil'yevich Stepanov proposed a device for the pressing out of the wheel axle from the front strut; the device

Card 2/3

/ Technical Progress and "Rationalizers" (Cont.)

reduced the required time from about one hour, needed previously, to ten minutes. Previously, a knock-out rod and sledge hammer were used for the operation during which the axle thread was often damaged and the strut made loose. There is a "good and numerous body of 'rationalizers' in the unit" and they produced quite a small number of various devices. There are "big problems" still awaiting solution by the "rationalizers" since at some airdromes one can see striking contrasts as the new and perfect coexist with the old.

AVAILABLE: Library of Congress

Card 3/3

AID P - 5331

Subject : USSR/Aeronautics - maintenance

Card 1/1 Pub. 135 - 10/24

Author : Vinnik, B. S., Eng.-Lt. Col.

Title : Peculiarities of exploitation of aviation armament under winter conditions.

Periodical : Vest. vozd. flota, 12, 58-61, D 1956

Abstract : Various problems with regard to the maintenance of aviation armament under winter conditions are described in detail. One diagram, 1 photo. The article is of informative value.

Institution : None

Submitted : No date

KOZLOV, I.V. inzhener-podpolkovnik; VINNIK, B.S., inzhener-mayor.

Organization of the technical maintenance of airplane armament.
Vest.Vozd.Fl. 38 no.3:61-66 Mr '56. (MLRA 9:8)
(Airplanes, Military--Armament)

AID P - 5127

Subject : USSR/Aeronautics - maintenance

Card 1/1 Pub. 135 - 12/26

Author : Vinnik, B. S., Eng.-Lt. Col.

Title : Preparation of fighter-aircraft armament

Periodical : Vest. vozd. flota, 10, 64-69, O 1956

Abstract : A detailed description of various measures to be taken in order to reduce the time necessary for the pre-flight preparation of aircraft armament. Five sketches. The article is of informative value.

Institution : None

Submitted : No date

VINNIK, B.S.

AID P - 4600

Subject : USSR/Aeronautics - engineering

Card 1/1 Pub. 135 - 12/23

Authors : Kozlov, I. V., Eng.-Lt. Col. and B. S. Vinnik, Eng.-Maj.

Title : Organization of technical servicing of aviation armament

Periodical : Vest. vozd. flota, 3, 61-66, Mr 1956

Abstract : The duties of engineers during the preliminary, preflight and post-flight preparation and servicing of bombing and artillery armament are described in detail. The article is of informative value.

Institution : None

Submitted : No date

VINNIK, E.M., kand.geol.-mineral.nauk

A petrographic study of concrete based on carbonate "sand." (MIRA 15:7)
Sbor.trud.VNIINerud no.1:55-71 '62.
(Concrete--Testing) (Rocks, Carbonate)

ANZIMIROV, G., inzh.; VINNIK, I., inzh.

Teaching by examples. NTO 3 no.11:54-55 N '61. (MIRA 14:10)

1. Chleny Nauchno-tekhnicheskogo obshchestva Dneprodzerzhinskogo koksokhimicheskogo zavoda.
(Dneprodzerzhinsk—Coke industry)

VINNIK, I.

Technical study room of a plant. Prof.-tekh. obr. 19 no.7:30-31 Jl '62. (MIRA 15:12)

1. Starshiy inzhener otdela tekhnicheskogo obucheniya koksokhimicheskogo zavoda, Dneprodzerzhinsk.
(Vocational education--Audio-visual aids)

ANZIMIROV, G.; VINNIK, I.

Power of an active propagation of technical information.
NTO 6 no.6:26-28 Je '64. (MIRA 17:8)

KORSHUNOVA, L.; VINNIK, I.

Planning to raise the cultural and technical level of workers. Prof.-tekh. obr. 20 no.11:26 N '63. (MIRA 17:1)

1. Chlen metodicheskogo soveta Doma politicheskogo prosveshcheniya Dneprodzerzhinskogo gorodskogo komiteta Kommunisticheskoy partii Ukrainy.

VINNIK, I. (Dneprodzerzhinsk); ANZIMIROV, G. (Dneprodzerzhinsk)

Efficiency is the main thing. Vop. ekon. no.2:129-132 F '64. (MIRA 17:3)

VINNIK, I.

Schools of ideological and work training. Prof.-tekh.obr. 22 no.4:26-27 Ap '65. (MIRA 18:5)

1. Starshiy inzh. tekhnicheskogo obucheniya Dneprodzerzhinskogo koksokhimicheskogo zavoda, Dnepropetrovskaya oblast'.

VINNIK, I., RUBAYLO, Ye.

Meetings that interest every worker. Sov. profsoiuzy 6 no.15: 46-49 N '58. (MIRA 11:12)

1.Rabotniki redaktsii gazety "Dneprovskiy koksovik" Dneprodzerzhinskogo koksokhimicheskogo zavoda.
(Dneprodzerzhinsk--Trade unions)

KOBZUNENKO, N.; VINNIK, I.

Case of Aleksei Zarevenko. Sov.profsoiuzy 16 no.9:47-48 My '60.
(MIRA 13:7)

1. Sotrudnik gorodskoy gazety "Dzershinets," Dneprodzerzhinsk (for Kobzunenko). 2. Redaktor mnogotirazhnoy gazety "Dneprovskiy koksovik," Dneprodzerzhinsk (for Vinnik).
(Labor discipline)

VINNIK, I.

At the plant of communist labor. NTO 3 no. 1:49-50 Ja '61.
(MIRA 14:2)
(Dneprodzerzhinsk--Coke industry)

VINNIK, I.

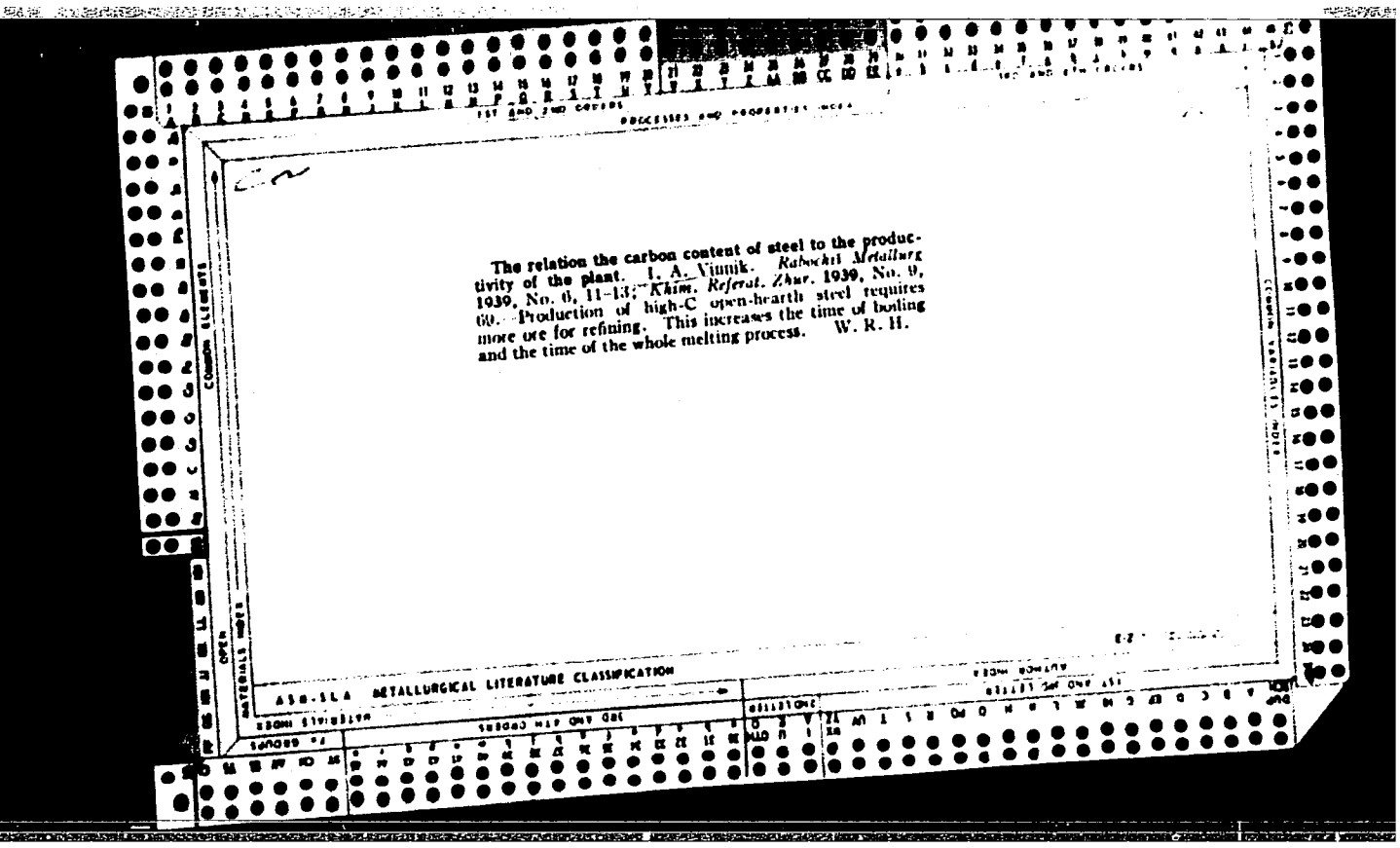
Training of coke chemists of Dneprodzerzhinsk. Prof.-tekh. obr. 17 no. 11:26-27 N '60. (MIRA 13:12)

1. Starshiy inzhener tekhnicheskogo obucheniya rabochikh Dneporodzerzhinskogo koksokhimicheskogo zavoda.
(Dneprodzerzhinsk--Coke industry)
(Dneprodzerzhinsk--Evening and continuation schools)

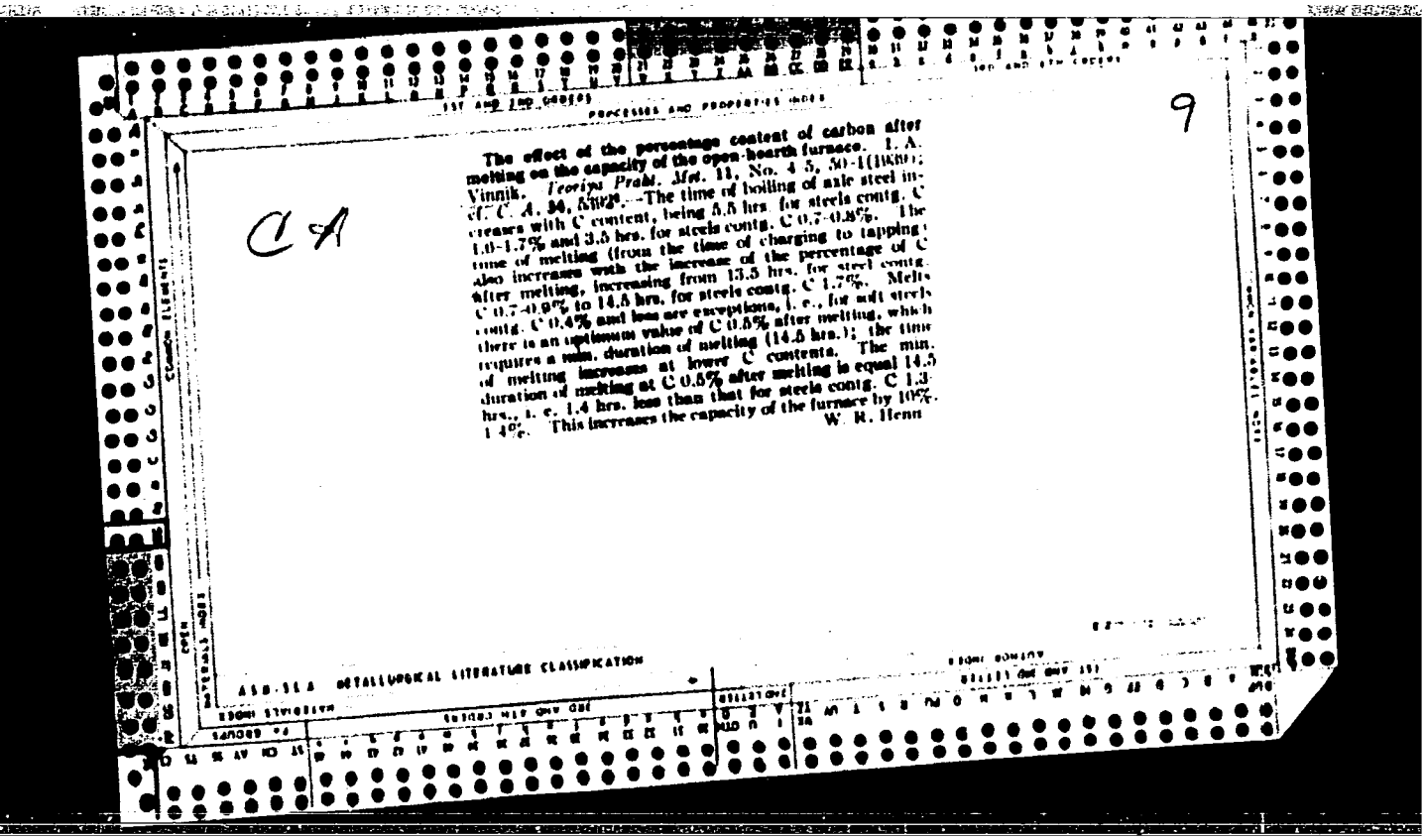
VINNIK, I., ANZIMIROV, G., ekonomist

Schools of progressive practice in a communist labor plant. Sots. trud 8 no.5:108-115 My '63. (MIRA 16:6)

1. Starshiy inzhener proizvodstvenno-tekhnicheskogo otdela Dneprodzerzhinskogo koksokhimicheskogo zavoda (for Vinnik).
(Dneprodzerzhinsk—Coke industry—Technological innovations)



The relation the carbon content of steel to the productivity of the plant. I. A. Vinnik. *Rabochii Metallurg* 1939, No. 6, 11–13; *Khim. Referat. Zhur.* 1939, No. 9, 60.—Production of high-C open-hearth steel requires more ore for refining. This increases the time of boiling and the time of the whole melting process. W. R. H.



9

C A

The effect of the percentage content of carbon after melting on the capacity of the open-hearth furnace. I. A. Vinnik. *Teoriya Prakt. Met.* 11, No. 4-5, 50-1(1938); cf. C. A. 34, 5892.—The time of boiling of axle steel increases with C content, being 5.5 hrs. for steels contg. C 1.0-1.7% and 3.5 hrs. for steels contg. C 0.7-0.8%. The time of melting (from the time of charging to tapping) also increases with the increase of the percentage of C after melting, increasing from 13.5 hrs. for steel contg. C 1.7%. Melts contg. C 0.7-0.9% to 14.5 hrs. for steels contg. C 1.7%. Melts contg. C 0.4% and less are exceptions, i. e., for soft steels there is an optimum value of C 0.5% after melting, which requires a min. duration of melting (14.5 hrs.); the time of melting increases at lower C contents. The min. duration of melting at C 0.5% after melting is equal 14.5 hrs., i. e. 1.4 hrs. less than that for steels contg. C 1.3-1.4%. This increases the capacity of the furnace by 10%.

W. R. Henn

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

VINNIK, I.D., insh.; KOROTKOV, M.A., insh.

Results of aerodynamic tests of the bypass pipes of a two-stage centrifugal compressors. Energomashinostroenie 10 no.12: 15-20 D '64. (MIRA 18:2)

VINNIK, I.D., inzh.; UMANSKIY, M.P., inzh.

Basic parameters of exit nozzle design for marine steam turbines. Sudostroenie 27 no.6:27-32 Je '61. (MIRA 14:6)
(Marine turbines)

L 35054-65 EPA/EWT(l)/EWP(m)/EWG(v)/EWP(f)/T-2/EWP(bb)-2/F[illegible](k) Pd-1/Pe-5/Pw-4
ACCESSION NR: AP5002225 S/0114/64/000/012/0015/0020

AUTHOR: Vinnik, I. D. (Engineer); Korotkov, M. A. (Engineer)

TITLE: Results of an aerodynamic investigation of crossover pipes in two-stage centrifugal compressors

SOURCE: Energomashinostroyeniye, no. 12, 1964, 15-20

TOPIC TAGS: compressor, centrifugal compressor, two stage compressor

ABSTRACT: The results of blowdown tests of six crossover-connection models with an axial uniform supply of air are reported. Each variant was designed on the basis of tests of the preceding variant; hence, the variants differ in the distribution of diffusivity among the constituent elements and in the shape, number, and position of the guiding vanes in the elbows. In addition, 50 full-size crossover pipes of the best variant were blowdown-tested to find out the effect of the accuracy of manufacture on their resistance. The best variant (II-5) was

Card 1/2

L 35054-65
ACCESSION NR: AP5002225

selected on the basis of the total-loss factor and pressure-conservation factor, and also the outlet velocity field. The sizes of all variants are tabulated. For limited-space cases, it is recommended that the crossover connections consist of three diffusers with two elbow pieces, variant II-5. Other recommendations are also given. Orig. art. has: 3 figures, 2 formulas, and 1 table.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: PR

NO REF SOV: 003 OTHER: 000

Card 2/2

ACC NR: AP6029619 (N) SOURCE CODE: UR/0114/66/000/008/0015/0017

AUTHOR: Sennichenko, M. D. (Candidate of technical sciences); Vinnik, I. D. (Candidate of technical sciences); Kharlamov, Ye. G. (Engineer)

ORG: none

TITLE: Discharge coefficient of turbine nozzle cascades under static and dynamic conditions

SOURCE: Energomashinostroyeniye, no. 8, 1966, 15-17

TOPIC TAGS: turbine nozzle diaphragm, gas turbine, turbine design, fluid discharge coefficient, gas turbine, nozzle flow, turbine cascade

ABSTRACT: To verify thermal calculations of gas turbines produced at the Leningrad plant, the plant's aerodynamics laboratory is systematically conducting tests to determine flow discharge coefficients for turbine nozzle cascades. The results of an experimental investigation of the discharge coefficients of nozzle cascades with the blade geometry shown in Fig. 1 and Table 1 are presented. Tests were conducted at flow Mach numbers M = 0.3—0.9. The obtained results show that: 1) The discharge coefficient of a nozzle cascade, in contrast to the velocity coefficient, is very sensitive to changes in the shape of the cascade's geometric parameters and the structural and gasdynamic conditions at

Card 1/3 UDC: 62-226.004.15

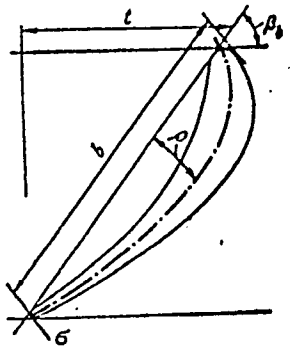


Fig. 1. Shape of nozzle blades tested.

Table 1. Geometric characteristics of the blades tested.

Blade no.	$\bar{\delta}$	$\bar{\varphi}$	$\bar{l}$	$\bar{t}$	β_b
1	$3.0 \cdot 10^{-3}$	0.160	1.91	0.47—1.06	42° 30′
2	$3.4 \cdot 10^{-3}$	0.228	1.88	0.50—1.06	48° 30′
3	$2.61 \cdot 10^{-3}$	0.176	1.93	0.65—1.13	52°
4	$2.62 \cdot 10^{-3}$	0.169	1.90	0.74—1.3	51° 10′
5	$1.7 \cdot 10^{-3}$	0.177	1.35	0.60—0.87	43°

the cascade inlet and exit. 2) To determine the maximal flow rate through a nozzle cascade, it is necessary to have its experimental characteristics. 3) Reliable flow discharge coefficient data can be obtained by wind-tunnel tests of annular cascades using the integral method, while maintaining geometric and gasdynamic similarity at the inlet and exit. 4) Additional investigation is needed to improve the

ACC NR: AP6029619

method of determining the discharge coefficient of annular and sectional nozzle cascades. Orig. art. has: 5 figures.

SUB CODE: 21/ SUBM DATE: none/ ORIG REF: 005/

Card 3/3

VINNIK, I.F.

4

SCHGLOVA, A.P.
SCHEKOVA, A.P., BOGDANOVA, O.K., BALANDIN, A.A., T'YUR'YAYEV, I.P., VINNIK, I.F.

Kinetics of dehydrogenation.

Report presented at the 12th Conference on high molecular weight compounds devoted to monomers, Baku, 3-7 April 62

MENIOVICH, Boris Iosifovich; VINNIK, Isaak Sholomovich; ANZIMIROV, Georgiy Gur'yevich; SKLOVSKAYA, A.A., otv. red.; KACHALKINA, Z.I., red. izd-va; OVSEYENKO, V.G., tekhn. red.; IL'INSKAYA, G.M., tekhn. red.

[Concentrating mill of the Dneprodzerzhinsk Coke Chemical Plant, an enterprise of communist labor] Obogatitel'naia fabrika Dneprodzerzhinskogo koksokhimzavoda - predpriiatie kommunisticheskogo truda. Moskva, Gosgortekhizdat, 1963. 103 p. (MIRA 16:7)

(Dneprodzerzhinsk--Coal preparation)

IZRAYELIT, B.Z.; SUVOROV, N.A.; VINNIK, I.V.; SILIN, Ye.M.

Anchor bolting at the Mine No.3 of the Yama Dolomite Combine. (MIRA 14:4)
Nauch. trudy KHGI no.6:143-154 '58.
(Yama region--Mine roof bolting)

VINNIK, I.V. (Khar'kov)

Theory of jet "hydrofuge." Izv. AN SSSR. Otd. tekh. nauk. Met, i topl. no.1:167-174 Ja-F '61. (MIRA 14:2)
(Boring machinery)

S/180/61/000/001/015/015
E073/E535

AUTHOR: Vinnik, I. V. (Khar'kov)

TITLE: On the Theory of a Jet Hydrofuge

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, 1961, No.1, pp.167-174

TEXT: Pneumatic impact mechanisms have a low efficiency; the isothermal efficiency of pneumatic drills is 10 to 25%, whilst the overall efficiency (including losses in the compressor, pipes and transmission losses to the drill) does not exceed 5%. Attempts to produce electrically-operated impact mechanisms have so far been unsuccessful. In recent years hydraulic impact mechanisms have been devised in which the hydraulic impact in a rigid pipe is being used. The efficiency of these is 40%, however, the presence of a rigid piping of considerable length limits its field of application. In 1959 a new type of impact mechanism was proposed by the author, B. Z. Izrayelit and A. I. Melekestsev, a jet hydrofuge, in which the acceleration of the striker proceeds under the effect of a free jet of water ejected from the nozzle in the direction of movement of the striker. For better utilization of the energy of the jet, the tail surface of the striker is given a

Card 1/5

On the Theory of a Jet Hydrofuge

special shape, which ensures deflection of the jet by an angle approaching 180° (Fig.1). The water thrown off the striker is caught by special devices and directed into the reception piping of the pump which is mounted parallel to the impact mechanism or even on the same frame. The water is then pumped back through the pressure piping into the nozzle so that a closed circulation is obtained and additional water has to be supplied only to compensate for leakages. If a supply system for water under pressure exists (for instance, in hydraulically operated mine workings), the hydrofuge impact mechanism can be made to work directly from the general supply network of water under pressure. Tht theoretical development of some problems of the operation of the hydrofuge impact mechanism indicates that its application will in many cases be more favourable than that of pneumatic mechanisms. In this article a brief mathematical analysis is given of the characteristics of the process of acceleration of the striker and of the parameters of the hydrofuge during reciprocal movement of the striker. It is shown that even under the most unfavourable conditions the efficiency of the hydrofuge is of the order of

On the Theory of a Jet Hydrofuge

75 to 80% and in some cases it may reach 90 to 95%. Taking into consideration that in modern pneumatic drills the bounce-off speed of the striker from the drill is 0.2 to 0.7 times the speed of impact, the author proposed a method of return movement of the striker in which the usually lost bouncing-off energy is utilized for generating the initial speed. The operation is as follows:
1) During the working stroke the striker is accelerated from the speed u_o to a speed u and, at the end of this stroke, the striker hits the drilling bit.
2) At the instant of striking, a party of the energy is transmitted to the drilling bit, the other part is lost and transformed into heat and sound. The remainder of the energy is utilized for bouncing back the striker.
3) During the reverse movement of the striker, its speed will decrease and at the end of its travel it will hit the rear buffer spring. As a result of this the impact is softened and some of the energy is utilized for generating the initial acceleration.
The operation of a single jet hydrofuge is illustrated by the sketch, Fig.3, where 1 - the nozzle, 2 - valve for deflecting the flow of water under pressure during the return movement of the

On the Theory of a Jet Hydrofuge

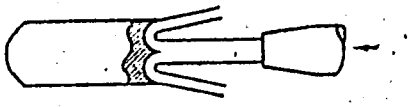
striker, 3 - striker, 4 - drilling bit, 5 - rear buffer spring which makes the striker bounce back into the forward direction, 6 - housing of the drill, 7 - screens for catching the water and deflecting it from the working space. Better utilization of the hydraulic energy can be obtained by using multi-striker hydrofuges in which the water under pressure, deflected from one striker during its reverse stroke, is fed to another striker. In spite of the increased design difficulties, this arrangement has definite advantages. A comparison is made of the main operating characteristics of hydrofuges at water pressures of 2.5 (2-striker) and 5.6 atm (single-striker) and pneumatic drills with air pressures of 6 and 5 atm. The striker weights were 1.5 and 1.2 kg (hydrofuges) and 2.9 and 2.2 kg (pneumatic drills), respectively. The impact power on the drilling bit (kgm/min) was, respectively, 13800 and 7350 (hydrofuges) and 12630 and 8400 (pneumatic drills). The overall efficiencies were 40.0 and 36% (hydrofuges) and 10.0 and 11.6% (pneumatic drills). It is pointed out that the values quoted for hydrofuges do not relate to the most favourable conditions of operation. There are 3 figures, 1 table and 2 Soviet references.

Card 4/5

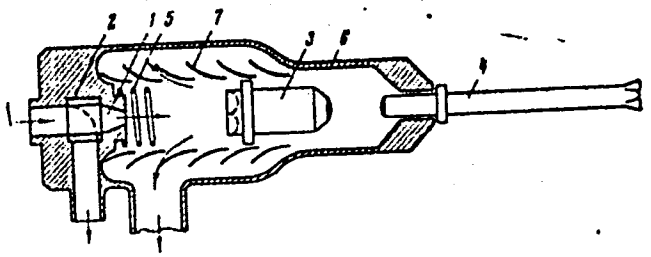
S/180/61/000/001/015/015
E073/E535

On the Theory of a Jet Hydrofuge

SUBMITTED: April 29, 1960



Фиг. 1. Схема разгона бойка



Фиг. 3. Схема ударного механизма с использованием отскока бойка: *1* — сопло, *2* — отсекатель, прерывающий струю на период обратного хода бойка, *3* — боек, *4* — бур, *5* — задняя буферная пружина, отражающая боек в направлении рабочего хода, *6* — корпус молотка и *7* — ловители, удаляющие отработанную воду из рабочего пространства

Fig.1

Fig.3

Card 5/5

IZRAYELIT, B.Z., dotsent; VINNIK, I.V., inzh.; KARASIK, I.B., kand. tekhn.nauk; TROFIMOV, V.P., gornyy inzh.; VOVK, A.A., gornyy inzh.; SHAMRAY, G.A.

Response to I.E.Detistov's article "Evaluating the efficiency of explosives." Ugol' 35 no.3:58-61 Mr '60. (MIRA 13:6)

1. Gosudarstvennyy nauchno-tekhnicheskiy komitet USSR. (for Trofimov and Vovk).
(Coal mines and mining--Explosives)
(Detistov, I.E.)